



Micro Commercial Components
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1N4151

Features

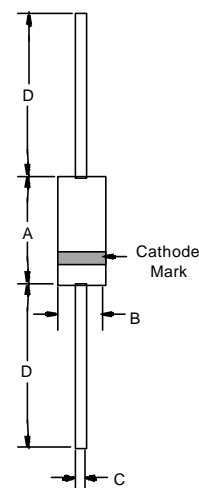
- Low Current Leakage
- Compression Bond Construction
- Low Cost

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 35°C/W Junction To Ambient

**500mW 75 Volt Silicon
Epitaxial Diode**

DO-35



Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------|-------|---|
| Reverse Voltage | V_{RM} | 75V | |
| DC Blocking Voltage | V_R | 50V | |
| Average Rectified Current | I_O | 150mA | Resistive Load $f > 50\text{Hz}$ |
| Power Dissipation | P_{TOT} | 500mW | |
| Junction Temperature | T_J | 150°C | |
| Peak Forward Surge Current | I_{FSM} | 500mA | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.0V | $I_{FM} = 50\text{mA};$ $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 50nA | $V_R = 50\text{Volts}$ $T_J = 25^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 2pF | Measured at 1.0MHz, $V_R = 4.0\text{V}$ |
| Reverse Recovery Time | T_{rr} | 4nS | $I_F = 10\text{mA}$ $V_R = 6\text{V}$ $R_L = 100\Omega$ |

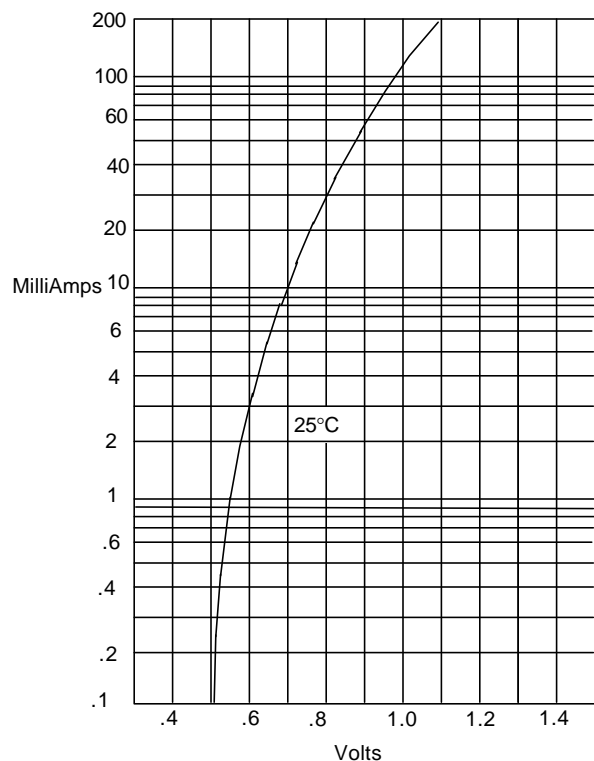
| DIMENSIONS | | | | | |
|------------|--------|------|-------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | --- | .166 | --- | 4.2 | |
| B | --- | .079 | --- | 2.00 | |
| C | --- | .020 | --- | .52 | |
| D | 1.000 | --- | 25.40 | --- | |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

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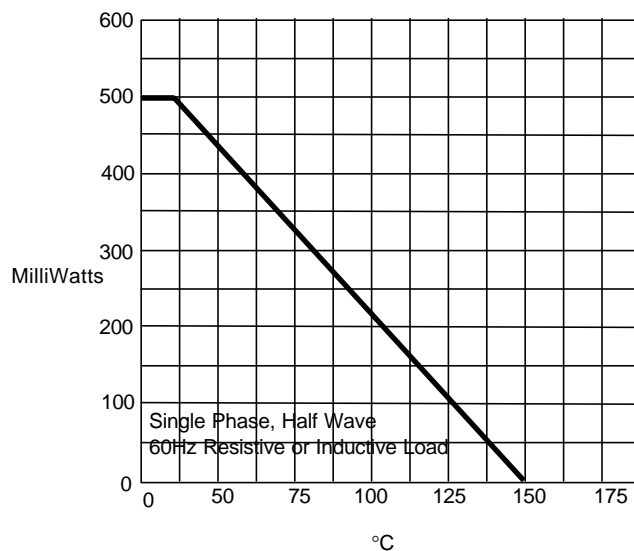


Figure 1
Typical Forward Characteristics



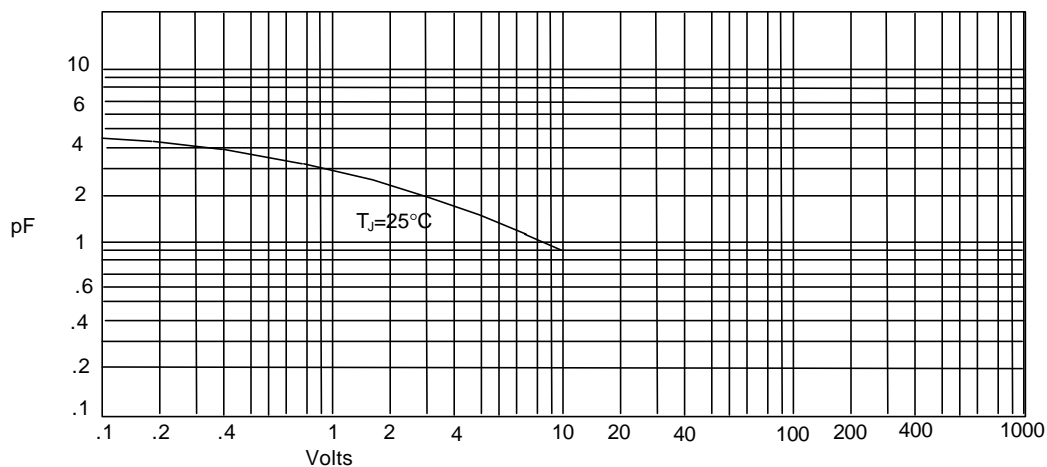
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



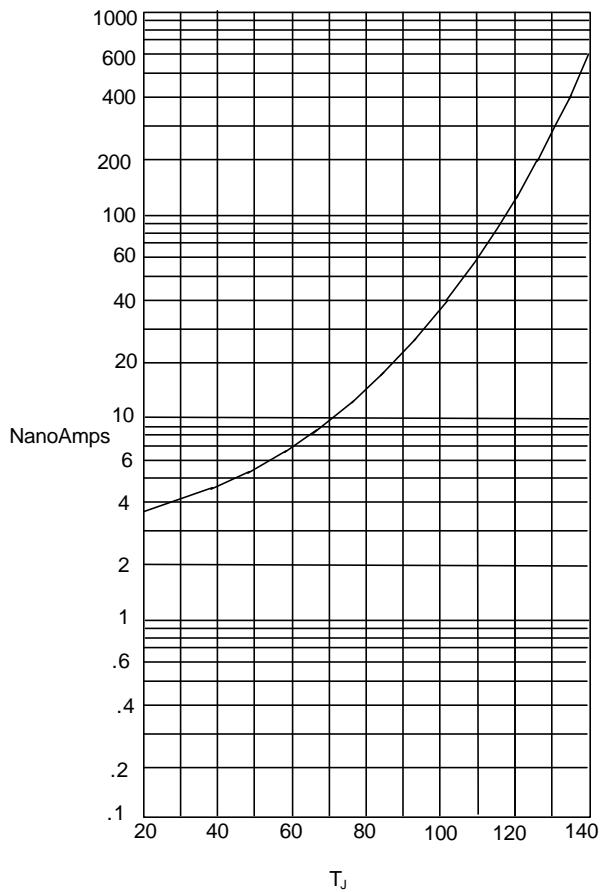
Admissible Power Dissipation - MilliWatts versus
Ambient Temperature - °C

Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

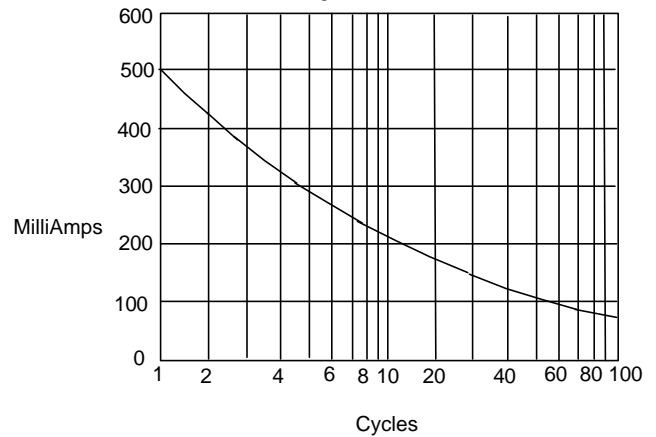
Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes *versus*
Junction Temperature - °C

$T_A=25^{\circ}\text{C}$
 $T_A=100^{\circ}\text{C}$

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles